

## REMARKS

Claims 1-41 were examined. Claims 1, 4, 6, 7, 9, 15, 18, 19, 25, 34, and 37 are amended. Applicants respectfully submit that no new matter is added to the amended claims. No claims are canceled or added. Claims 1-41 remain in the application. Reconsideration of the pending claims is respectfully requested in view of the above amendments and the following remarks.

### **I. Double Patenting Rejection**

Claims 1-2, 15-16 and 25-26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 14 and 23 of co-pending Application No. 10/112,920.

Applicants maintain the acknowledgment of the provisional double-patenting rejection and that should the co-pending application 10/112,920 issue and the issued claims warrant a nonstatutory double-patenting rejection in the instant application, Applicants will take action at that time to overcome the double patenting rejection.

### **II. Claim Rejections Under 35 U.S.C. § 103**

Claims 1-3, 13-17, 23-27 and 33-35 are rejected under 35 U.S.C. § 103(x) as being unpatentable over U.S. Patent No. 6,633,976 to Stevens (“*Stevens*”) in view of the non-patent literature document entitled “EFI: A BIOS Vendor’s Perspective” by Stevens (“*ReStevens*”). Applicants respectfully disagree with this rejection. To establish a *prima facie* case of obviousness, there must first be some suggestion or motivation to modify a reference or to combine references, and second be a reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. Third, the prior art reference or references when combined, must teach or suggest all the claim limitations. M.P.E.P § 706.02(j) from In Re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir.1991).

Among other limitations, claims 1, 15 and 25, as amended, recite “determining firmware resources required by each of the plurality of firmware modules, the firmware resources required are associated with one or more other firmware modules; determining a subset of the plurality of firmware modules a firmware module may call; determining a subset of the plurality firmware modules that call the firmware module; scheduling modules of the plurality of firmware modules

for execution in consideration of the required firmware resources that are determined.” The combination of *Stevens* and *ReStevens* does not teach or suggest these limitations.

According to the Final Office Action mailed on March 6, 2006, the Examiner recognizes that *Stevens* does not teach or suggest “determining firmware resources required by each of the plurality of firmware modules, the firmware resources required are associated with one or more other firmware modules” and relies on *ReStevens* for teaching and suggesting of this limitation. In the Final Office Action, the Examiner has made a number of inconsistent interpretations. Applicants respectfully submit that as matter of law, the Examiner is required to interpret each limitation of a claim consistently. The Examiner interpreted that the EFI drivers as the firmware resources and then the EFI Option ROMs as the firmware modules. See Final Office Action, page 4, paragraph 9. However, the Examiner has previously interpreted the firmware modules in *Stevens* to be the code stored on non-solid state system (e.g. ROM, EEPROM, etc.) wherein the code initializes CPU or memory. See Final Office Action, page 4, paragraph 7; col. 2, lines 48-55. Therefore the firmware modules in *Stevens* are code rather than the non-solid state system such as ROM. Because the Examiner has interpreted the firmware modules in *ReSteven* as the non-solid state system such as ROM, the combination of *Stevens* and *ReStevens* is not operable.

Furthermore, according to the Examiner, the “Boot Process” and the “EFI PHASE 1” slides disclose “scheduling the plurality of firmware modules for execution in consideration of the determined required firmware resources.” Applicants respectfully submit that the “Boot Process” and the “EFI PHASE 1” slides make no teaching or suggestion of this limitation. These two slides disclose a number of operations to initialize hardware, BIOS runtime service, EFI driver, etc. See the “Boot Process” and the “EFI PHASE 1” of *ReStevens*. However, these two slides do not disclose “scheduling the plurality of firmware modules for execution in consideration of the determined required firmware resources.”

The statement made by the Examiner in the Final Office Action, page 5, paragraph 10 is not logical. According to the Examiner, only the EFI drivers determined to be required are loaded and schedule for execution in order to enhance the compatibility between legacy OS and current BIOS as the scheduling of unloaded EFI drivers would render the system inoperable. Neither the “Boot Process” nor the “EFI PHASE 1” slide discloses determining whether a particular EFI driver is required. The two slides merely show “initialize EFI Drivers from Disk” in the “EFI PHASE 1” slide. A driver can be loaded even though it is not required. The Examiner again interprets the limitations inconsistently because according to the Final Office Action, the Examiner suggests that

an unloaded EFI driver is a firmware module to be scheduled. This interpretation is inconsistent with the Examiner's interpretation earlier that the EFI Option ROMs are the firmware modules.

Because the Examiner has made these inconsistent interpretations, the combination of *Steuers* and *ReSteuers* does not teach or suggest the limitations of claims 1, 15 and 25.

Dependent claims 2, 3, 13, 14, 16, 17, 23, 24, 26, 27 and 33 depend from the independent claims 1, 15 and 25 and therefore incorporate the limitations of these claims. For at least the reasons stated above, these dependent claims are patentable over the combination of *Steuers* and *ReSteuers*.

With respect to claim 34, the claim as amended recites "each module of the plurality of firmware modules includes a resource list associated with one or more other firmware modules." Applicants respectfully submit that the combination of *Steuers* and *ReSteuers* do not teach or suggest this limitation.

Dependent claim 35 depends from the claim 34 and therefore incorporates the limitations of that claim. For at least the reasons stated above, these dependent claims are patentable over the combination of *Steuers* and *ReSteuers*.

Claims 4-12, 18-22, 28-32 and 36-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Steuers* and *ReSteuers* in view of U.S. Patent No. 5,999,989 to Patel ("*Patel*").

Dependent claims 4-12, 18-22, 28-32 and 36-41 depend from claims 1, 15, 25 and 34 and therefore incorporate the limitations of these claims. For at least the reasons stated above, the combination of *Steuers* and *ReSteuers* do not teach or suggest the limitations of these independent claims. *Patel* does not cure this deficiency.

*Patel* discloses a plug-and-play BIOS wherein BIO routines are typically stored in a system ROM and shadowed or copied into RAM for faster execution and wider data channels. (col. 4, lines 64-67). The system BIOS is designed to have access to system resource information, and therefore "knows" what system resources are available. The devices are isolated and are read to determine the resource requirements of the devices. (col. 6, lines 10-15).

The BIOS in *Patel* determined the system resource required by each device, rather than the BIO routines stored in a system ROM. Therefore, *Patel* does not teach or suggest "determining firmware resources required by each of the plurality of firmware modules, the firmware resources required are associated with one or more other firmware modules; determining a subset of the plurality of firmware modules a firmware module may call; determining a subset of the plurality

firmware modules that call the firmware module; scheduling modules of the plurality of firmware modules for execution in consideration of the required firmware resources that are determined.”

Because *Patel* does not disclose this limitation, *Patel* does not cure the deficiency of *Stevens* and *ReStevens*.

Accordingly, reconsideration and withdrawal of the rejections of claims 4-12, 18-22, 28-32 and 36-41 are respectfully requested.

## CONCLUSION


In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
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6/6/06  
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